

## REMARKS/ARGUMENTS

New claims 5-13 have been added.

The Examiner has rejected claims 1-4 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,081,665 to *Nilsen et al.* (“*Nilsen*”). However, *Nilsen* does not disclose all elements of the claims as amended. More specifically, *Nilsen* does not disclose routines configured to interact substantially interchangeably with more than one garbage collector.

While *Nilsen* discloses general routines that interact with garbage collectors in known ways, nowhere does *Nilsen* disclose routines *configured specifically to interact in interchangeable fashion with garbage collectors*. In other words, *Nilsen* does not disclose routines configured so that different garbage collectors can be readily “plugged in” without any changes to the routines.

Applicant has already noted that many prior art routines must be modified for each different garbage collector. “[W]hen it is desired for a garbage collector to be modified or replaced with another garbage collector, the virtual machine itself must also be modified to support the modified or replacement garbage collector.” (Specification, page 2, lines 22-24). *Nilsen* appears to disclose routines like the prior art – certainly, *Nilsen* does not indicate anything to the contrary. As such, the routines of *Nilsen* suffer from the typical drawbacks of the prior art: “the process of altering or changing a garbage collector is time-consuming as it often requires substantial modifications be made to the virtual machine to accommodate the altered or new garbage collector.” (Specification, page 2, lines 27-29).

In contrast, Applicant’s invention allows for pluggable garbage collectors that do not need to be rewritten or modified at all, thus saving development time and increasing efficiency: “A garbage collection framework which enables different garbage collectors to be developed and readily ‘plugged into’ the framework *without requiring changes to be made to a virtual machine* increases the flexibility of systems which use the garbage collectors. For example, an improved garbage collector may be readily implemented in an existing system to increase the efficiency with which the system operates, thereby increasing overall system performance.” (Specification, page 6, lines 17-22) (emphasis added).

Because Applicant’s claim 1 discloses routines configured to interact substantially interchangeably with more than one garbage collector, claim 1 is patentable over *Nilsen* for at least the reason discussed above. Claims 2-4 depend from claim 1 and are thus also patentable over *Nilsen* for at least this same reason. Additionally, claims 2-4 contain other limitations not

disclosed in *Nilsen*. For example, claim 3 discloses a read barrier, while *Nilsen* specifically states that “[w]e do not impose a read barrier.” (Col. 50:25).

Applicant now believes the present case to be in condition for allowance, and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at (650) 314-5322.

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "Jon Y. Ikegami", is written over the printed name.

Jon Y. Ikegami  
Reg. No. 51,115

P.O. Box 778  
Berkeley, CA 94704-0778  
(650) 961-8300